REMARKS

Claims 14 and 17 have been amended. Claims 15, 16, 18, and 19 have been amended to correct their respective dependency. Claims 14 to 19 remain in the application.

The Examiner has objected to claims 14-19 as not complying with 35 U.S.C. 103(a) on the grounds that the subject matter of the claims would have been obvious in view of U.S. Patent 6,452,933 issued to Duffield.

Amended claim 14 of the present application is directed to a method of limiting a rate at which a connection is serviced at a queuing point. The method includes determining whether the connection exceeds a rate limit defined for the connection. If the connection exceeds its rate limit, the connection is scheduled in a peak rate limiting shaper queue. As described in the description from page 16 line 15 to page 17 line 7, this allows cells arriving too quickly to be scheduled within the peak rate limiting shaper queue 34 at time expressly selected to reduce servicing time to within the rate limit allowed for the connection. This is a problem not addressed by Duffield, and Duffield does not teach or suggest a peak rate limiting shaper queue, nor a method for limiting the rate at which a connection is serviced. Duffield only teaches increasing the rate at which packets are serviced by use of any available excess bandwidth when none of the shaper devices 30 are passing packets to the rate proportional server 40.

The method of amended claim 14 also includes arranging a plurality of connections, including the connection whose rate is being limited, being serviced at the queuing point into a plurality of prioritized queues. If the connection is within its rate limit, the connection is also scheduled in a weighted-fair-qucuing scheduler queue. As described in the description from page 15 line 15 to page 16 line 14, a connection may therefore be scheduled on both a prioritized queue and a weighted-fair-queuing (WFQ) scheduler queue (or indeed, on a prioritized queue and a peak rate limiting shaper queue). By queuing connections on both queues simultaneously when more than one cell is waiting to be serviced, the WFQ scheduler can easily access connections containing cells to be serviced when free bandwidth becomes available, as the connections are already queued. By queuing connections rather than messages, the first cell to be serviced in a particular connection will always be serviced first, whether it is by the prioritized queue serviced by a shaper or by the WFQ scheduler queue. In contrast, the method taught by Duffield queues packets rather than connections (column

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4 lines 11-12). Furthermore, the method taught by Duffield does not queue connections, or even packets, in both a prioritized queue and a WFQ queue. Indeed, Duffield does not appear to teach a WFQ queue, the state dependent scheduler 200 simply accessing one of the queues 20 when bandwidth becomes available, the same queues being serviced by the shaper devices 30. Duffield does not explain how to avoid the SDS 200 servicing a packet from a queue 20 at the same time the corresponding shaper device 30 attempts to service the packet, a problem avoided in the present application by queuing a connection (as opposed to a packet) on two queues simultaneously and servicing the WFQ queue only once the prioritized shaper queues have been checked for servicing.

Independent amended claim 17 includes similar elements as amended claim 14, and the same arguments presented above with respect to amended claim 14 and Duffield apply equally to amended claim 17. Claims 15, 16, 18, and 19 are dependent on and include the same limitations as claims 14 and 17.

Duffield does not disclose a method of limiting a rate at which a connection is serviced, does not disclose arranging a plurality of connections into a plurality of prioritized queues, does not disclose scheduling a connection in a peak rate limiting shaper queue, and does not disclose scheduling a connection in a WFQ scheduler queue. For these reasons, the Applicant respectfully submits that Duffield does not teach each of the elements of the claims of the present application, that a *prima facie* case of obviousness is not established, and that the amended claims of the present application are not obvious in view of the teachings of Duffield.

In view of the foregoing, it is believed that the claims as amended herein are in condition for allowance. Reconsideration and action to this end is respectfully requested.

Respectfully submitted,

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